

CLAIMS

What is claimed is:

1. A method of wrapping products (1) in films (2 a, 2 b) comprising the steps of:
 - positioning the products (1) on a first sheet of film (2 a) which is continuously advanced in one transport direction;
 - covering the products (1) with a second sheet of film (2 b), which is continuously advanced in the transport direction and which is aligned plane-parallel to the first sheet of film (2 a), characterised by ultrasonically welding the first and second films (2 b) on the outer edges (16 a, 16 b) of the products (1) in each case and ultrasonically separating the overlapping films (2 a, 2 b) at selected positions;
 - separating the wrapped products (1) or groups of wrapped products (1).
2. The method as claimed in Claim 1, characterised in that the ultrasonic welding and ultrasonic cutting are performed with a welding punch (8) disposed opposite the supporting table (7) and plane-parallel above one film (2), the welding punch (8) and supporting table (7) being moved towards one another for ultrasonic welding and ultrasonic cutting.
3. The method as claimed in Claim 2, characterised by generating an ultrasonic oscillation on the surface of the supporting table (7) with a sonotrode device integrated in the supporting table (7) and pressing the films (2 a, 2 b) onto the supporting table (7) in the region of the welding and cutting edges of the welding punch (8), which are an image of the welded and cut edges of the wrapped products (1).
4. The method as claimed in Claim 1, characterised in that the ultrasonic welding and/or ultrasonic separation are performed

with a pressure roller disposed opposite and plane-parallel to the supporting table (7) above one film (2), said pressure roller being guided across said film (2) according to the contours to be welded and cut, with pressure exerted on the supporting table (7) for ultrasonic welding and/or ultrasonic separation.

5. The method as claimed in any of the preceding claims, characterised by pre-shaping at least one film (2 a, 2 b) to receive the products (1) before the step of positioning the products (1) on the sheet of film (2 a, 2 b).
6. A device for wrapping products (1) in films (2 a, 2 b) according to the method as claimed in any of the preceding claims with:
 - a first conveyor means for continuously advancing a first sheet of film (2 a),
 - a positioning means (4) for positioning products (1) on the first sheet of film (2 a),
 - a second conveyor means for covering the products (1) positioned on the first sheet of film (2 a) with a second sheet of film (2 b), which is aligned plane-parallel to the first sheet of film (2 a),
 - a fixed supporting table (7) with an integrated sonotrode arrangement for generating ultrasonic oscillations and
 - an opposing welding punch (8) disposed plane-parallel to the supporting table (7), said welding punch (8) having welding and cutting edges as an image of the welding and cut edges of the wrapped products (1) and being mounted on the supporting table (7) such as to move towards and away from the supporting table (7),
 - said sheets of film (2 a, 2 b) with the products (1) held between them being guided between the supporting table (7) and the welding punch (8).

7. The device as claimed in Claim 6, characterised by at least one pre-shaping means (9) for at least one of the sheets of film (2 a, 2 b) such that the products (1) can be received in indentations in the pre-shaped films (2 a, 2 b).
8. The device as claimed in either of Claims 6 or 7, characterised in that the welding and cutting edges of the welding punch (8) are formed in such a way that a pull-tab (13) is formed on an outer edge (16 a, 16 b) of the product wrapping and the first and second films (2 b) are not welded together in the region of the pull-tab (13).
9. The device as claimed in any of Claims 6 to 8, characterised in that the welding and cutting edges of the welding punch (8) are formed in such a way that a welding seam (15) or cut line (17) is formed in the pull-tab (13), said welding seam (15) or cut line (17) running transversely into a welding seam (15) on the outer edge (16 a, 16 b) of the product wrapping.
10. The device as claimed in any of Claims 6 to 9, characterised in that the welding and cutting edges of the welding punch (8) are formed in such a way that a cut line (17) between two outer edges (16 a, 16 b) of the product wrapping runs transversely across one of the films (2 a, 2 b) of the product wrapping.
11. A device for wrapping products (1) in films (2 a, 2 b) according to the method as claimed in any of Claims 1, 4 and 5 with:
 - a fixed supporting table (7) with an integrated sonotrode arrangement for generating ultrasonic oscillations and
 - an opposing supporting roller which is plane-parallel to the supporting table (7) and which can be guided in a freely movable manner, sheets of film (2 a, 2 b) with the products (1) held between them being disposed between the supporting table (7) and the supporting roller.

12. A film-wrapped product (1), especially confectionery, which is wrapped between two films (2 a, 2 b), characterised in that said films (2 a, 2 b) are ultrasonically welded together along the entire outer edges (16 a, 16 b) of the product (1) and at least one pull-tab (13) is provided at an outer edge (16 a, 16 b).
13. The film-wrapped product (1) as claimed in Claim 12, characterised in that a welding seam (15) or cut line (17) is formed in the pull-tab (13), said welding seam (15) or cut line (17) running transversely into a welding seam (15) on the outer edge (16 a, 16 b) of the product wrapping.
14. The film-wrapped product (1) as claimed in either of Claims 12 or 13, characterised in that a cut line (17) between two outer edges (16 a, 16 b) of the product wrapping runs transversely across one of the films (2 a, 2 b) of the product wrapping.